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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,810	08/01/2005	Harald Kramer	3203	2948
7590 11/17/2005				
Striker Striker & Stenby 103 East Neck Road Huntington, NY 11743		EXAMINER BENSON, WALTER		
		ART UNIT 2858 PAPER NUMBER		

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/520,810	KRAMER ET AL.	
	Examiner	Art Unit	
	Walter Benson	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/10/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-13 are presented for examination.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR
DEVELOPMENT.

(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT

(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A

COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program

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listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a).

"Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. The disclosure is objected to because of the following informalities:

i. The use of claim within the body of the disclosure on page 1, line 5, page 2, lines 1 and

14. This information should be written out.

Appropriate correction is required.

Drawings

4. The drawings are objected to because Figs 1 and 2 require legends. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: In claims 12, and 13; examiner was unable to find support in the

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specification for “wherein each of the intermediate-circuit capacitor units is composed of one capacitor”; and “wherein every pad of the chain of resistors is composed of one resistor”.

Claim Objections

6. Claim 1 objected to because of the following informalities:

i. Usually the structure of a claim will contain:

- a. Preamble section
- b. Body section
- c. Transitional section.

Claim 1, contains too many transitional words, it is unclear what is the preamble and the body of the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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8. Claims 1-3, 5, and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kataoka et al. (US Patent No. 4,805,063 and Kataoka hereinafter).

9. As to claim 1, Kataoka discloses an electronic circuit for short circuit monitoring one of at least two series-connected intermediate-circuit capacitor units, whereby the instantaneous difference between the voltage present at the junction between two of the units to be monitored and a reference voltage that is relevant for the monitoring and is shunted from the intermediate-circuit voltage is used as the control signal, which, if the capacitor short circuits, falls below or exceeds a response threshold and thereby generates an error signal (Fig. 2; col. 2, lines 36-53).

10. As to claim 2, Kataoka discloses an electronic circuit for short circuit monitoring one of at least two series-connected intermediate-circuit capacitor units comprising:

where each intermediate-circuit capacitor unit is composed of one or more capacitor(s) connected in series and/or in parallel (col. 2, lines 36-38).

11. As to claim 3, Kataoka discloses an electronic circuit for short circuit monitoring one of at least two series-connected intermediate-circuit capacitor units comprising:

where the reference voltage is formed by a chain of series-connected resistors, which is connected in parallel with the intermediate-circuit capacitor units to be monitored (col. 2, lines 54-68).

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12. As to claim 5, Kataoka discloses an electronic circuit for short circuit monitoring one of at least two series-connected intermediate-circuit capacitor units comprising:

where an error signal voltage is generated using a current-voltage converter directly from the current that flows due to the voltage asymmetry produced when an error occurs (col. 3, lines 2629).

13. As to claim 7, Kataoka discloses an electronic circuit for short circuit monitoring one of at least two series-connected intermediate-circuit capacitor units comprising:

where each of the intermediate-circuit capacitor units to be monitored corresponds to a part of the chain of resistors, whereby the part is composed of one or more resistors (col. 3, lines 34-40).

14. As to claim 8, Kataoka discloses an electronic circuit for short circuit monitoring one of at least two series-connected intermediate-circuit capacitor units comprising:

where the ratio of capacitor capacitance to the corresponding pad of the chain of resistors is essentially the same for all pairs of corresponding resistor pads and capacitors (col. 3, lines 40-47).

15. As to claim 9, Kataoka discloses an electronic circuit for short circuit monitoring one of at least two series-connected intermediate-circuit capacitor units comprising:

where the error signal voltage is based on a freely selectable ground potential (col. 3, lines 50-52).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kataoka in view of Lumbroso (GB 2 047 495 A and Lumbroso hereinafter).

Although the system disclosed by Kataoka shows substantial features of the claimed invention (discussed in the paragraphs above), it fails to disclose:

where the response threshold that is relevant for the system is determined by the breakdown voltage of a zener diode [claim 4];

where the current, which flows when an error occurs, is limited by the resistance of the chain of resistors [claim 6].

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kataoka, as evidenced by Lumbroso.

Lumbroso discloses a delayed action warning system having:

where the response threshold that is relevant for the system is determined by the breakdown voltage of a zener diode [claim 4] (page. 2, lines 105-109) to establish a threshold voltage;

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where the current, which flows when an error occurs, is limited by the resistance of the chain of resistors [claim 6] (Page 2, lines 66-74).

Given the teaching of Lumbroso, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying Kataoka by employing the well known or conventional of monitoring devices, such as disclosed by Lumbroso, in order to efficiently provide a warning signal for a low threshold and for the purposes discussed above.

18. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kataoka in view of Baker (US Patent No. 6,268,988 B1 and Baker hereinafter).

Although the system disclosed by Kataoka shows substantial features of the claimed invention (discussed in the paragraphs above), it fails to disclose:

where the error signal voltage is detected using a light-emitting diode- photodiode pair [claim 10].

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kataoka, as evidenced by Baker.

Baker discloses a ground fault detector system having:

where the error signal voltage is detected using a light-emitting diode- photodiode pair [claim 10] (col. 3 lines 50-54, and col. 4 lines 1-13).

Given the teaching of Baker a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying Kataoka by

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employing the well known or conventional of monitoring devices, such as disclosed by Baker, in order to provide a signal if there is D.C. leakage current across the capacitor.

19. Claims 11-13, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kataoka in view of Swift (US Patent No. 3,125,720 and Swift hereinafter).

Although the system disclosed by Kataoka shows substantial features of the claimed invention (discussed in the paragraphs above), it fails to disclose:

where all intermediate-circuit capacitor units have the same capacitance [claims 11, 12];

where every part of the chain of resistors is composed of one resistor [claim 13].

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kataoka, as evidenced by Swift.

Swift discloses a capacitor fault detector system including a resistance voltage divider having:

where all intermediate-circuit capacitor units have the same capacitance [claims 11, 12]

(col. 3, lines 21-23 and lines 27-32);

where every part of the chain of resistors is composed of one resistor [claim 13] (col. 2, lines 42-44).

Given the teaching of Swift a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying Kataoka by employing the well known or conventional of monitoring devices, such as disclosed by Swift, in order to provide a remote indication if there is a faulty capacitor.

Prior Art Made of Record

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. Okana (US Patent No. 5,880,589) discloses a method and apparatus for making diagnosis of electrolytic capacitor in operation.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter Benson whose telephone number is (571) 272-2227. The examiner can normally be reached on Mon to Fri 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Walter Benson
Patent Examiner

November 8, 2005